

REMARKS

Claims 66, 72, 86-88, 91 and 105-108 are all the claims pending in the application; claims 88, 105 and 106 are allowed; claims 66, 72, 86, 87, 91, 107 and 108 are rejected.

Upon entry of this amendment, claims 86, 87, 107, and 108 will be canceled, claims 109-120 will be added, and claims 66, 72, 88, 91, 105, 106 and 109-120 will be pending.

Claim 72 has been amended to place it in the same format as claim 66.

Support for new claim 109 may be found at page 24, line 23, through page 25, line 6; page 38, lines 8-14; page 41, lines 23-29; page 74, line 26, through page 75, line 9; page 77, lines 5-13; page 86, line 28, through page 87, line 18.

Support for new claim 110 may be found at page 24, line 23, through page 25, line 6; page 38, lines 1-7; page 41, lines 23-29; page 74, line 26, through page 75, line 9; page 77, lines 5-13; page 86, line 28, through page 87, line 18.

Support for new claims 111-112 may be found at at page 41, lines 23-29; page 74, line 26, through page 75, line 9; page 78, lines 4-11.

Support for new claims 113 and 114 may be found at page 24, line 23, through page 25, line 6; page 74, line 26, through page 75, line 9; page 77, lines 5-13.

Support for new claims 115 and 116 may be found at page 22, line 18, through page 23, line 14; page 78, line 15, through page 84, line 2; page 104, line 20, through page 105, line 3; page 100, line 21, through page 101, line 5.

Support for new claims 117-120 may be found at page 42, lines 1-26.

No new matter has been added. Entry of the amendment is respectfully requested.

I. Formal Matters

A. As summarized in the Amendment filed May 4, 2005 (page 7), the Examiner previously indicated that he would attend to the correction of inventorship of this application (adding Dominique Bergeron as an inventor), in view of Applicants request filed October 30, 2003, and request that an updated Official Filing Receipt be provided to Applicants.

As Applicants have not yet received an updated Filing Receipt, Applicants renew their request and thank the Examiner in advance for his assistance in this regard.

B. In the Office Action dated August 12, 2003, the claims then pending in the application were restricted into eight groups. Applicants elected the claims of Group I (claims 66-72 and 84-91). One of the non-elected groups was the claims of Group IV (claims 48-54), drawn to a method for identifying a compound that binds to a STAAU_R9 polypeptide (i.e., SEQ ID NO:2).

As noted in MPEP §821.04, where restriction is required between a product and a process of using the product, and the product was elected and found to be allowable, process claims that depend from or otherwise include all of the limitations of the allowed product claims are to be rejoined as a matter of right.

Applicants note that new claims 109-120 are of similar scope as non-elected claims 48-54, and depend from the allowed product claims. Accordingly, Applicants respectfully request rejoinder of the method claims recited in claims 109-120.

II. Claim Objections

A. At paragraph 6 of the Office Action, claim 66 is objected to due to the recitation “an isolated or *first purified* polypeptide.” The Examiner suggests instead reciting an “isolated or *purified first* polypeptide.”

Included herewith is an amendment to claim 66 in the manner suggested by the Examiner (Applicants thank the Examiner for the helpful suggestion). In view of the amendment to claim 66, Applicants respectfully request reconsideration and withdrawal of this rejection.

B. At paragraph 7 of the Office Action, claim 91 is objected to as using an inconsistent claim format. The Examiner suggests that the claim be amended to refer to a “third” amino acid sequence in part (c) of the claim.

Included herewith is an amendment to claim 91 in the manner suggested by the Examiner (Applicants thank the Examiner for the helpful suggestion). In view of the amendment to claim 91, Applicants respectfully request reconsideration and withdrawal of this rejection.

III. Claim Rejections Under 35 U.S.C. §112, Written Description

At paragraph 8 of the Office Action, claims 66, 72, 86-87, 91 and 107-108 are rejected under 35 U.S.C. §112, first paragraph, as lacking written description support in the specification as filed.

A. The Examiner states that there is no support in the specification for the recitation of polypeptides comprising amino acids 380-599 of SEQ ID NO:2 *at their carboxy terminus* (claim 66), or for polypeptides comprising amino acids 561-599 of SEQ ID NO:2 (i.e., SEQ ID NO:6) *at their carboxy terminus* (claim 72). Thus, the Examiner contends that there is no

support in the specification for the positioning of either of the two fragments at the carboxy terminus of the claimed polypeptides.

Included herewith is an amendment canceling claims 86-87 and 107-108, thus making the rejection moot as to these claims.

As to claims 66, 72 and 91, Applicants respectfully traverse the Examiner's position for the following reasons.

Claims 66 and 72

Applicants consider there to be clear and sufficient support for a polypeptide comprising amino acids 380-599 of SEQ ID NO:2, wherein amino acids 380-599 are located at the carboxy terminus of the polypeptide (claim 66), and for a polypeptide comprising SEQ ID NO:6 (amino acids 561-599 of SEQ ID NO:2), wherein SEQ ID NO:6 is located at the carboxy terminus of the polypeptide (claim 72).

Applicants first note the clear support in the specification for polypeptide fragments consisting of amino acids 380-599 and 561-599 of SEQ ID NO:2. Figure 10A is labeled "Fragments of STAAU_R9". Fragments of amino acids 380-599 and 561-599 of SEQ ID NO:2 are shown in Figure 10A. The specification states that "Fragments of STAAU_R9 [SEQ ID NO:2] also are included in the invention. These fragments may include, for example, truncation polypeptides having a portion of an amino acid sequence of Fig. 1 (SEQ ID NO: 2)..." at page 58, line 12.

Further, Applicants note that there is support for polypeptides comprising the two noted fragments *at the carboxy terminus* of polypeptides in the following passages of the specification are relevant:

1. “Fragments of STAAU_R9 also are included in the invention. These fragments may include, for example, truncation polypeptides having a portion of an amino acid sequence of Fig. 1 (SEQ ID NO: 2), a fragment or a variant thereof, *such as a continuous series of residues that includes an amino- and/or carboxyl-terminal amino acid sequence.*” Page 58, lines 12-16.

2. “Several approaches and techniques known to those skilled in the art can be used to identify and to characterize interacting fragments of STAAU_R9 and 96 ORF 78. These fragments may include, for example, truncation polypeptides having a portion of an amino acid sequence of any of the two proteins, or variants thereof, *such as a continuous series of residues that includes an amino- and/or carboxyl-terminal amino acid sequence.*” Page 55, lines 13-18.

3. “The invention also provides polynucleotides that encode a polypeptide that is the mature protein plus additional amino or carboxyl-terminal amino acids, or amino acids interior to the mature polypeptide.” Page 65, lines 15-17.

4. “Fragments of STAAU_R9 may be expressed as fusion proteins with other proteins or protein fragments.” Page 58, lines 24-25.

In view of these passages, Applicants respectfully assert that there is adequate written description support for claims 66 and 72 in the specification as filed, and request reconsideration and withdrawal of the rejection of claims 66 and 72.

Claim 91

At page 4, last paragraph, of the Office Action, the Examiner notes that there is written description support for a polypeptide that has 95% identity or 97% similarity to SEQ ID NO:2. In view thereof, claim 91 has been amended to limit the scope of the claim to polypeptides

having 95% identity to SEQ ID NO:2 (along with the recitation of the activity of the homologues, and recitation of the polypeptide of SEQ ID NO:2 itself).

Accordingly, as there is adequate written description support for claim 91, as amended, Applicants respectfully request reconsideration and withdrawal of the rejection of claim 91.

IV. Claim Rejections Under 35 U.S.C. §112, Written Description

At paragraph 10 of the Office Action, claims 91 and 107-108 are rejected under 35 U.S.C. §112, first paragraph, as being non-enabled.

The Examiner refers to the Office Action dated March 31, 2005, for the basis of this rejection. Therein, at paragraph 7 (page 12), the Examiner stated that there is no evidence that the claimed polypeptides would have the biological activities recited in the claims. The Examiner contends that there is no evidence that the polypeptide of SEQ ID NO:2 itself has any activity (the activity was assigned based on sequence similarity), let alone variants of SEQ ID NO:2.

Included herewith is an amendment canceling claims 107-108, thus making the rejection moot as to these claims.

As to claim 91, Applicants respectfully traverse the Examiner's position for the following reasons.

The Examiner notes at the middle of page 6 of the Office Action that a skilled artisan "would expect the fold of the claimed polypeptides [polypeptides having 95% identity or 97% similarity to the polypeptide of SEQ ID NO:2] to maintain a conformation similar to that of SEQ ID NO:2."

Applicants respectfully assert, in conjunction with the extensive review of the *Wands* factors set forth in the Amendment dated April 5, 2005 (pages 13-19), that the skilled artisan would readily expect that protein homologues (such as those recited in claim 91) that maintain the same conformation as a non-altered protein (SEQ ID NO:2) would have the same activity as the non-altered protein. As such, the homologues of SEQ ID NO:2 recited in claim 91 are also enabled.

Accordingly, Applicants respectfully request reconsideration and withdrawal of this rejection.

V. Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

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